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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/551,509	04/17/2000	Yoshiyuki Namizuka	0557-4964-2	1654

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

LAMB, TWYLER MARIE

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 07/02/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/551,509

Applicant(s)

NAMIZUKA ET AL.

Examiner

Twyler M. Lamb

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5, 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 8, 22 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 8 recites the limitation "said image memory control unit" in line 2". There is insufficient antecedent basis for this limitation in the claim.

Claim 22 recites the limitation "the image data" in line 2". There is insufficient antecedent basis for this limitation in the claim.

Claim 24 recites the limitation " the image data" in line 4". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-2, 4, 7-9, 11, 14-17, 19 and 22-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Kurozasa (US 6,278,526).

With regard to claim 1, Kurozasa discloses an image-processing apparatus (Figure 1) comprising: at least one of a image reading unit (image reader unit 30 including a scanner 33) which reads an image data (first image data) (col 4, lines 7-43), an image memory control unit (CPU 431 based on the control program stored in ROM 432) which writes/reads the image data (second image data) by controlling a memory (col 7, lines 25-29), an image processing unit (image signal processing unit 110) which processes the image data to obtain a third image data (col 4, lines 38-44), and an image writing unit (printer unit 50 including print processing unit 130) which prints an image corresponding to the image data on a paper (col 4, line 45 – col 5, line 20); and an image data control unit (control unit 440) which receives at least one of the first image data, the second image data, and the third image data, and transmits received image data to said image writing unit (printer control unit 430) (col 7, lines 50-54).

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With regard to claim 2, Kurozasa also discloses said image processing is realized with a processor and the program of this processor is changeable (col 6, lines 62–66).

With regard to claim 4, Kurozasa also discloses further comprising, a first processor (CPU 441) which controls any of said image reading unit, said image processing unit, and said image writing unit through a first bus (col 8, lines 1-9); and a second processor (control unit 200) which controls said image memory control unit through a second bus (col 8, lines 53-57), wherein said image data control unit (control unit 440) controls the interface between said first bus and said second bus (col 7, lines 50-54).

With regard to claim 7, Kurozasa discloses an image-processing apparatus (Figure 1) comprising: at least one of a image reading unit (image reader unit 30 including a scanner 33) which reads an image data (first image data) (col 4, lines 7-43), an image processing unit (image signal processing unit 110) which processes the image data to obtain a third image data (col 4, lines 38-44), and an image writing unit (printer unit 50 including print processing unit 130) which prints an image corresponding to the image data on a paper (col 4, line 45 – col 5, line 20); and an image data control unit (control unit 440) which receives at least one of the first image data, the second image data, and the third image data, and transmits received image data to said image writing unit (printer control unit 430) (col 7, lines 50-54).

With regard to claim 8, Kurozasa also discloses said image memory control unit (CPU 431 based on the control program stored in ROM 432) has been connected through said image data control unit (control unit 440) to any of said image reading unit, said image processing unit, and said image writing unit, and wherein said image data control unit transmits the image data to or receives the image data from said image memory control unit and anyone of said image reading unit, said image processing unit, and said image writing unit (printer control unit 430) (col 7, lines 50-54).

With regard to claim 9, Kurozasa also discloses said image processing is realized with a processor and the program of this processor is changeable (col 6, lines 62-66).

With regard to claim 11, Kurozasa also discloses further comprising, a first processor (CPU 441) which controls any of said image reading unit, said image processing unit, and said image writing unit through a first bus (col 8, lines 1-9); and a second processor (control unit 200) which controls said image memory control unit through a second bus (col 8, lines 53-57), wherein said image data control unit (control unit 440) controls the interface between said first bus and said second bus (col 7, lines 50-54).

With regard to claim 14, Kurozasa discloses an image-processing apparatus (Figure 1) comprising: at least one of a image reading unit (image reader unit 30 including a scanner 33) which reads an image data (first image data) (col 4, lines 7-43), an image memory control unit (CPU 431 based on the control program stored in ROM 432) which writes/reads the image data (second image data) by controlling a memory

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(col 7, lines 25-29), and an image writing unit (printer unit 50 including print processing unit 130) which prints an image corresponding to the image data on a paper (col 4, line 45 – col 5, line 20); and an image processing unit (image signal processing unit 110) which receives at least one of the first image data, the second image data, and the third image data (col 4, lines 38-44) , and transmits received image data to said image writing unit (printer control unit 430) (col 7, lines 50-54).

With regard to claim 15, Kurozasa also discloses said image processing unit (image signal processing unit 110) has been connected through said image data control unit (control unit 440) to any of said image reading unit, said image memory control unit, and said image writing unit, and wherein said image data control unit transmits the image data to or receives the image data from said image processing unit and anyone of said image reading unit, image memory control unit, and said image writing unit (printer control unit 430) (col 7, lines 50-54).

With regard to claim 16, Kurozasa also discloses said image processing unit comprises a correcting unit (print processing unit 130) which corrects the deterioration of the information of the first image data (col 4, lines 45-49); and an image quality processing unit (print processing unit 130) which processes the image quality of the image data corrected by said correcting unit or the second image data in accordance with the image formation characteristic (col 4, lines 45-49).

With regard to claim 17, Kurozasa also discloses said image processing is realized with a processor and the program of this processor is changeable (col 6, lines 62-66).

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With regard to claim 19, Kurozasa also discloses further comprising, a first processor (CPU 441) which controls any of said image reading unit, said image processing unit, and said image writing unit through a first bus (col 8, lines 1-9); and a second processor (control unit 200) which controls said image memory control unit through a second bus (col 8, lines 53-57), wherein said image data control unit (control unit 440) controls the interface between said first bus and said second bus (col 7, lines 50-54).

The limitations for claims 22-24 are addressed in the rejections above

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3, 10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurozasa (US 6,278,526) in view of Iwase et al. (Iwase) (US 6,188,803).

With regard to claim 3, Kurozasa differs from claim 3, in that he does not teach said image processing is realized with an SIMD (Signal Instruction Multiple Data stream) processor.

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Iwase discloses an image processing device that includes image processing being realized with an SIMD (Signal Instruction Multiple Data stream) processor (col 12, lines 39-43; col 12, lines 50-58).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kurozasa to include image processing being realized with an SIMD (Signal Instruction Multiple Data stream) processor as taught by Iwase. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kurozasa by the teaching of Iwase so that the processors can be arranged in parallel and can be controlled together in accordance with a single program contained in the program controller as taught by Iwase in col 12, lines 50-58.

With regard to claim 10, Kurozasa differs from claim 10, in that he does not teach said image processing is realized with an SIMD (Signal Instruction Multiple Data stream) processor.

Iwase discloses an image processing device that includes image processing being realized with an SIMD (Signal Instruction Multiple Data stream) processor (col 12, lines 39-43; col 12, lines 50-58).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kurozasa to include image processing being realized with an SIMD (Signal Instruction Multiple Data stream) processor as taught by Iwase. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kurozasa by the teaching of Iwase so that the processors can be

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arranged in parallel and can be controlled together in accordance with a single program contained in the program controller as taught by lwase in col 12, lines 50-58.

With regard to claim 18, Kurozasa differs from claim 18, in that he does not teach said image processing is realized with an SIMD (Signal Instruction Multiple Data stream) processor.

lwase discloses an image processing device that includes image processing being realized with an SIMD (Signal Instruction Multiple Data stream) processor (col 12, lines 39-43; col 12, lines 50-58).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kurozasa to include image processing being realized with an SIMD (Signal Instruction Multiple Data stream) processor as taught by lwase. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kurozasa by the teaching of lwase so that the processors can be arranged in parallel and can be controlled together in accordance with a single program contained in the program controller as taught by lwase in col 12, lines 50-58.

9. Claims 5-6, 12-13 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurozasa (US 6,278,526) in view of Nakajima et al. (Nakajima) (US 5,650,861).

With regard to claim 5, Kurozasa differs from claim 5 in that he does not teach further comprises a facsimile control unit connected to any of said image memory control unit and said image data control unit through said second bus, which facsimile

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control unit transmits or receives a facsimile image from or to any of said image memory control unit and said image data control unit.

Nakajima discloses an image processing apparatus that includes comprising a facsimile control unit (CPU 2002) connected to any of said image memory control unit and said image data control unit through said second bus (bus 2030) (col 26, lines 18-26), which facsimile control unit transmits or receives a facsimile image from or to any of said image memory control unit and said image data control unit (col 26, lines 29-62).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kurozasa to include comprising a facsimile control unit connected to any of said image memory control unit and said image data control unit through said second bus, which facsimile control unit transmits or receives a facsimile image from or to any of said image memory control unit and said image data control unit as taught by Nakajima. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kurozasa by the teaching Nakajima to add the capability of faxing to the functions the apparatus is capable of performing as taught in Nakajima in col 26, lines 46-61.

With regard to claim 6, Kurozasa as modified also discloses said image reading unit (image reader unit 30 including a scanner 33), said image data control unit (control unit 440), said image memory control unit (CPU 431 based on the control program stored in ROM 432), said image processing unit (image signal processing unit 110), said image writing unit (printer unit 50 including print processing unit 130) are configured as independent units (col 6, lines 5-12).

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With regard to claim 6, Kurozasa differs from claim 6 in that he does not teach facsimile control unit configured as an independent unit.

Nakajima discloses an image processing apparatus that includes comprising a facsimile control unit (CPU 2002) configured as an independent unit (col 26, lines 18-26).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kurozasa to include comprising a facsimile control unit configured as an independent unit as taught by Nakajima. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kurozasa by the teaching Nakajima to add the capability of faxing to the functions the apparatus is capable of performing as taught in Nakajima in col 26, lines 46-61.

With regard to claim 12, Kurozasa differs from claim 12 in that he does not teach further comprises a facsimile control unit connected to any of said image memory control unit and said image data control unit through said second bus, which facsimile control unit transmits or receives a facsimile image from or to any of said image memory control unit and said image data control unit.

Nakajima discloses an image processing apparatus that includes comprising a facsimile control unit (CPU 2002) connected to any of said image memory control unit and said image data control unit through said second bus (bus 2030) (col 26, lines 18-26), which facsimile control unit transmits or receives a facsimile image from or to any of said image memory control unit and said image data control unit (col 26, lines 29-62).

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Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kurozasa to include comprising a facsimile control unit connected to any of said image memory control unit and said image data control unit through said second bus, which facsimile control unit transmits or receives a facsimile image from or to any of said image memory control unit and said image data control unit as taught by Nakajima. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kurozasa by the teaching Nakajima to add the capability of faxing to the functions the apparatus is capable of performing as taught in Nakajima in col 26, lines 46-61.

With regard to claim 13, Kurozasa as modified also discloses said image reading unit (image reader unit 30 including a scanner 33), said image data control unit (control unit 440), said image memory control unit (CPU 431 based on the control program stored in ROM 432), said image processing unit (image signal processing unit 110), said image writing unit (printer unit 50 including print processing unit 130) are configured as independent units (col 6, lines 5-12).

With regard to claim 13, Kurozasa differs from claim 13 in that he does not teach facsimile control unit configured as an independent unit.

Nakajima discloses an image processing apparatus that includes comprising a facsimile control unit (CPU 2002) configured as an independent unit (col 26, lines 18-26).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kurozasa to include comprising a facsimile control unit

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configured as an independent unit as taught by Nakajima. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kurozasa by the teaching Nakajima to add the capability of faxing to the functions the apparatus is capable of performing as taught in Nakajima in col 26, lines 46-61.

With regard to claim 20, Kurozasa differs from claim 20 in that he does not teach further comprises a facsimile control unit connected to any of said image memory control unit and said image data control unit through said second bus, which facsimile control unit transmits or receives a facsimile image from or to any of said image memory control unit and said image data control unit.

Nakajima discloses an image processing apparatus that includes comprising a facsimile control unit (CPU 2002) connected to any of said image memory control unit and said image data control unit through said second bus (bus 2030) (col 26, lines 18-26), which facsimile control unit transmits or receives a facsimile image from or to any of said image memory control unit and said image data control unit (col 26, lines 29-62).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kurozasa to include comprising a facsimile control unit connected to any of said image memory control unit and said image data control unit through said second bus, which facsimile control unit transmits or receives a facsimile image from or to any of said image memory control unit and said image data control unit as taught by Nakajima. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kurozasa by the teaching Nakajima to add the

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capability of faxing to the functions the apparatus is capable of performing as taught in Nakajima in col 26, lines 46-61.

With regard to claim 21, Kurozasa as modified also discloses said image reading unit (image reader unit 30 including a scanner 33), said image data control unit (control unit 440), said image memory control unit (CPU 431 based on the control program stored in ROM 432), said image processing unit (image signal processing unit 110), said image writing unit (printer unit 50 including print processing unit 130) are configured as independent units (col 6, lines 5-12).

With regard to claim 21, Kurozasa differs from claim 21 in that he does not teach facsimile control unit configured as an independent unit.

Nakajima discloses an image processing apparatus that includes comprising a facsimile control unit (CPU 2002) configured as an independent unit (col 26, lines 18-26).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kurozasa to include comprising a facsimile control unit configured as an independent unit as taught by Nakajima. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kurozasa by the teaching Nakajima to add the capability of faxing to the functions the apparatus is capable of performing as taught in Nakajima in col 26, lines 46-61.

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Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Twyler Lamb whose telephone number is 703 - 308-8823. The examiner can normally be reached on M-TH (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L Coles can be reached on 703-308-4712. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-6036 for regular communications and 703-872-9314 for After Final communications.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, DC 20231

or faxed to:

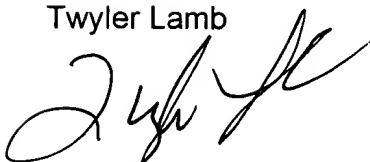
(703) 872-9314

(for informal or draft communications, such as proposed amendments to be discussed at an interview; please label such communications "PROPOSED" or "DRAFT")

or hand-carried to:

Crystal Park Two
2121 Crystal Drive
Arlington, VA.
Sixth Floor (Receptionist)

Twyler Lamb

A handwritten signature in black ink, appearing to read 'Twyler Lamb', is written over the printed name.

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